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ABSTRACT

Student retention has been a divisive educational question since the turn of the century. And although early educators found that retention was not particularly effective, they continued using it because their options were limited. Today, educators have many options to retention. Using the database from Project STAR, a study explored the common demographic characteristics and school types of retained kindergartners and first graders. Also, the study examined the effect of class size on the academic achievement of retained kindergartners and first graders. Retained students' achievement scores in reading and math on the Stanford Achievement and the Basic Skills First tests were analyzed in three class sizes: small (13-17 students), regular (21-25 students), and regular with an aide. The average kindergarten and first grade retainee was poor, white, male, and attended a rural school. Class size was unsuccessful in remediating student achievement despite the fact that new enrollees in small classes outscored their peers in larger classes. It is clear that retention does not achieve its goals and is more expensive than remedial services. (Contains 16 references.) (JPT)

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ED 369 177

TO RETAIN OR NOT?
THERE IS NO QUESTION*

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Abstract

Using the extant database of Project STAR and following the recommendation of Cooley and Bickel (1986) to use already existing data in policy making, a study was conducted which looked at two questions concerning retention in grade. One, what would the portrait of the retained kindergartener and first grader be considering such demographics as race, sex, social economic status, and school type? Two, the question of whether class size would remediate the achievement scores of kindergartners and first graders once they had been retained was examined. Achievement scores of reading and math on the Stanford Achievement and the Basic Skills First tests were analyzed between and among three class types for students who had been retained and those new enrollees: small, S, (13-17 students); regular, R, (21-25 students), and regular with an aide, RA, (21-25).

Results showed the STAR retainee in kindergarten and grade one to be a poor, white male attending a rural school. The retainee appeared as a nonminority due to the large proportion of white students in the STAR database; proportionately, the retainee was a minority student. Additionally, this study concluded that class size was unsuccessful in remediating achievement of students once they had been retained despite the fact that new enrollees in S consistently outscored their peers in R and RA. The question arises: why did small class not have a positive effect on the scores of retainees? Alternatives to retention are given.

To Retain or Not? There Is No Question
Barbara H. Harvey

Retention has washed the educational shores in waves of popularity since its origin. A review of the literature on retention shows the topic to have been of keen interest since the early 1900's. Although retention has been widely used for nearly a century, the efficacy of this practice remains questionable and its usefulness controversial. Educators and researchers alike hold highly emotional views on the issue. Advocates of retention cite the need for standards while its critics hold that those same standards are not achieved by retaining students. Research reviews overwhelmingly find in favor of the latter group and have done so since the first days of retention studies.

At the beginning of the century, educators looked for means to alleviate the problems which began to appear as grade levels supplanted the non-graded school. How effective was instruction going to be when all students were moved forward to the next grade despite their levels of skill? Retention appeared as one solution. By 1911, studies showed that retention was far from the remedy educators had hoped it would be; nevertheless, they continued its practice because nothing more logically appealing or academically beneficial was available at the time.

Today, educators have at their disposal a number of techniques designed to help the student who is not meeting grade-level standards. A majority of the research emphasizes benefits of intervention in the regular classroom for at-risk students. Learning problems can be diagnosed and prescriptions drafted and implemented (Norton, 1990, 206). Lieberman (1980) and Shepard and Smith (1990) suggest that multi-disciplinary teams do in-depth analyses of students who are inadequate or severely deficient in basic skill acquisition. These students then advance to the next grade with Individualized Educational Plans. Recycling students through the same programs that were originally inappropriate for them will only perpetuate the inappropriate programs that become less interesting the second time around. Other in-class interventions suggested by the literature include peer tutoring, summer programs, mainstreaming, cooperative learning, attention to learning styles, individualized instruction, special instructional programs on weekends and during vacation, remediation before and after school, year-round schooling, and parent-help programs (Hartley, 1977; Bredekamp & Shepard, 1989;).

In addition to in-class programs, there are separate alternatives to promotion with remediation. Included are nongraded, multi-aged programs much like those of the first American schools, developmentally appropriate curriculum taught by teachers properly prepared to deliver it, curriculum based on more current learning theory from cognitive and constructivist psychology, and use of smaller classes (Wertsch, 1985; Byrnes & Yamamoto, 1986; Connell, 1987; Resnick, 1987; Charlesworth, 1989, Word et al, 1990). The most often selected alternatives to

remediation are increased remedial instruction and small classes (Byrnes & Yamamoto, 1986). Unlike retention, these options have a research base signifying positive effects.

Research on the value of retention has not been a carefully guarded secret, though many educators and most policy makers appear never to have become acquainted with it. Since the inception of retention, well over 100 studies have been conducted on the subject. Many studies have found that retention has negative emotional effects on children, while the bulk of research has discredited the contention that retention improves academic achievement. Such studies have concluded that 1)retention does not increase learning; students who are promoted tend to learn more than students of like ability who were retained, 2)retention does not increase reading readiness for most students; 3)retention does not increase socialization skills, and 4)retention tends to promote discipline problems (Norton, 1983). Holmes and Matthews (1984) concluded from their meta-analysis review of retention literature:

> Those who continue to retain pupils at grade level do so despite cumulative research evidence showing that the potential for negative effects consistently outweighs positive outcomes. Because this cumulative research evidence consistently points to negative effects of nonpromotion, the burden of proof legitimately falls on proponents of retention plans to show there is compelling logic indicating success of their plans when so many other plans have failed (p.232).

Among the lengthy list of alternatives to retention is the often-mentioned technique of small class size. A review of research in this area uncovers some controversy. Research conducted prior to 1920 shows little or no relationship between class size and student achievement; it was not until research design improved that results began to show that class size did affect student achievement.

In 1978, Glass and Smith conducted a meta-analysis of the class size research and found that students learn more in smaller classes. In 1984 and 1989, Slavin re-analyzed eight of the 77 studies in the Glass and Smith meta-analysis using an abbreviated form of a review technique called best-evidence synthesis. Results showed that substantial reductions in class size generally had a positive effect on student achievement.

In Tennessee, policy makers wanted an answer to the question of class size and achievement before they set class-size policy. In 1985, a cooperative, four-year project involving the State Department of Education, a four-university consortium, and 42 local school systems was begun. This study possessed the strengths earlier research lacked--randomness, size, and time. Seventy-nine schools participated with students randomly assigned

to small (13-17 students), regular (21-25 students), or regular with an aide (21-25 students) classes. In the first year, there were 101 regular classes, 99 regular with aide classes, and 128 small classes. Teachers were randomly assigned to one of the three class types while students were initially randomly assigned to a class type and remained with that class type throughout the study which followed them through grades K-3. New students were randomly assigned in accordance with vacancies. Students were tested yearly on the appropriate Stanford test in K, 1, 2, and 3 and on the state-developed criterion test in grades 1-3. The pupil was the primary unit of data collection and the class was the unit of analysis.

Results from STAR were conclusive: pupils in small classes made significantly greater gains than other pupils. The class size effect was found equally in schools from inner city, suburban, rural, and urban areas and favored the small class condition in all four grade levels with greatest gains visible in K-1 (Word et al., 1990; Nye, Achilles, Zaharias, Fulton, & Wallenhorst, 1992).

Since retention continues as a common practice in most school systems today, yet another study on the topic has been conducted using the extensive STAR database. This study uses the STAR database to examine two questions: 1)what picture of the retained kindergartner and retained first grader is given by demographics, and 2)if a retained student is subsequently placed in either a small class, regular class, or regular class with an assistant, what are the differences in achievement for retained students based on class-size placement?

The population for this study is the students who were retained at the end of kindergarten (1984-85) and those who were retained at the end of grade one (1985-86) in Project STAR. Entry profiles of students showed whether a student had been retained in kindergarten (1984-85). Student records related that 253 youngsters had been retained in K (1984-85) and entered STAR in K (1985-86). Students who entered the STAR database in grade one in 1986 had been held back in first grade or were new to the project. Over-age students in K (1985) were either kept out of school for some reason or retained in grade in K. Kindergarten was not required in the state of Tennessee in 1984-85 and so some students entered school for the first time in grade one.

Students who entered STAR for the first time and were six years nine months and twenty-two days (6.8 years) and younger as of October 1, 1986 were considered new first graders. Those students who were approximately six years eleven months (6.9 years) and older at this time were considered to have been retained. Students who had been retained in kindergarten were identified by teachers who marked such information on student forms; this information was then added to their record on the STAR database.

In order to determine the effects on retained students, retained students were identified from student records and/or as new students who entered STAR each year and who were

approximately one year older than their "regular" age mates. For example, in 1986-87, (grade one) 2276 new students entered STAR; 1152 of these were "overage," defined as at least 6.9 years as of October 1, 1986. Teachers identified 253 kindergartners as having been retained in 1984-85. At the same time, 6041 first-time kindergartners entered STAR. A frequency distribution related that (4%) were 5.8 years or younger; 96% were 5.9 years or older as of October 1, 1985. The mean age of new enrollees was 5.4 years while the mean age of retained kindergartners as of October 1, 1985 was 6.2 years. These students would then be at least 6.9 years when they entered first grade, the age selected as an indicator of retention for the grade one sample.

The STAR database followed students from kindergarten through third grade. The Center of Excellence for Research in Basic Skills extracted data from the STAR database for the population of those students retained either in kindergarten or in grade one. The mean and standard deviation of the scores for the total reading and total math sections of the Stanford Achievement Test (SAT) were collected on both students retained and not retained by class type at the end of kindergarten and grades one, two, and three. Total percent passing was calculated for these same parameters on the criterion-referenced BSF test. (BSF is not given in K.) Total number of students tested was also given for each section of the test, disaggregated by class type within "not retained" and "retained" categories of students. Not all students were always present for all parts of the test, so the number (n) of students may vary slightly within years. Variation in numbers can be assumed to be reasonably equivalent among class types due to the randomness of student placement.

Demographics of sex, race, socio-economic status (determined by free and not-free lunch), class size distribution, and school type distribution were colllected on students at the end of kindergarten and grade one.

This study used post-test analysis of the students' results on the SESAT II test at the end of kindergarten, and the results on the SAT at the ends of first, second, and third grades, and on the BSF test at the end of grades one through three. An analysis of variance (ANOVA) was computed on scores for small (S), regular (R), and regular with an aide (RA) classes for retained kindergarten students and retained first grade students as well as those who had not been retained. Computer analysis provided F ratios and F probabilities. Trends were identified by comparing those students who had been retained to those who had not been retained. Frequency and percent of placement by class size and school type were also calculated. Chi-square was used to calculate significance for demographics of retained and not retained students at the $p \leq .05$.

Much of the literature suggests the portrait of the retained youngster to be a black, poor male in inner city schools. This is not the picture that resulted from Project STAR, rather the retained youngster was a white male from a rural school. The STAR database is made up of a preponderance of white, rural

males. This overpopulation of whites accounts for the high percentage of white retainees at both the kindergarten and first grade levels. The same is true of rural schools, which constitute the highest percentage of schools in Tennessee.

Disaggregation by race produced the following: of the 4216 white students entering STAR in 1984-85, 5% entered as kindergarten retainees. Of the 2078 minority students, 2.5% entered as kindergarten retainees. In 1985-86, first time kindergartners entering STAR were 67% white and 33% minority, while the previously retained pupils entering STAR in kindergarten were 79% white and 21% minority.

In grade one, no significant difference was revealed in the analysis of retention by race. New entrants were 60% white and 52% of the retained students were white. Of the retained pupils, 61% were white, while of the non-retained pupils, 59% were white. Retention among kindergartners showed more that twice as many white students were retained as were minority children; grade one showed an almost equal number of retentions between the races.

By sex, the rate of retention is higher among boys than among girls. There are slightly more than twice as many boys (69%) as girls (31%) in the retained population of kindergartners. In first grade, there are slightly less than two times the number of boys (62%) as girls (38%) in the first grade.

Breakdown by socio-economic status, determined by utilizing free and not free lunches, was again similar to that of earlier studies. Of 253 retained kindergarteners, 63.2% received free lunch, almost twice the number paying for lunch. Results were similar among first graders. Of the 1117 who reported on free lunch, 69.2% were on free lunch and 30.8% were not on free lunch.

A variation from the findings of previous studies appeared in the disaggregation of retainees by school type. Of the four school types, the largest percents of previously retained kindergarten students were in rural and suburban schools, with approximately 58% and 23% retained respectively as compared to 7% in inner-city and 12% in urban schools.

As with kindergartners, the largest number of first grade retainees was found in rural schools and the least number in urban schools. Of the retained population, approximately 40% of the retentions occurred in rural schools. Of students entering STAR in grade one, more than half of those from rural areas (54.6%) and from inner-city schools (54.8%) had been retained in grade one (1985-86).

The portrait of the retained kindergartner is drawn from Project STAR as a white male from a low socio-economic background in a rural school. This is due to the large numbers of white rural students in the database. Although fewer of the 253 kindergarten retainees were minority pupils, the proportion of minority pupils was higher than the proportion of nonminority pupils retained. Table 1 summarizes the demographics.

Retention studies show that once retained, a child does not catch up with his or her peers academically. The present study offered similar conclusions analyzing test scores of retained

kindergartners and first graders by class size. A comparison of the SAT scores in reading and math across four years showed that, contrary to the expectation established by other class-size studies, retained students in regular classes performed better than retainees in S and RA classes in all cases except one (retainees in S in math in K). Small-class students did better than R and RA students in only three cases, and all were in K: better than RA in reading by .8, better than R by 3.2 points in reading, and better than RA by 9.1 points in math. In all other cases, the test results of S class students fell behind those of RA students who generally scored lower than R class students. There is no significant difference between and within groups. The pattern of mean scores fails to reflect any remediation effect offered by the S condition for retained kindergarten students.

A different pattern emerges when looking at the means of reading and math scores of non-retainees for four years. At every grade level in both reading and math, students in the S condition outscored those in R and RA by a significant margin. Additionally, these students outscored those second-time kindergartners in all three class sizes. Once retained, kindergartners were not able to catch up. See Tables 2 and 3.

As with the retained kindergarten students, generally no significant difference was found between and within groups for retained first graders. (See Tables 4 and 5.) Only in grade one with math scores was there a significant difference between R and RA and again in grade two in reading between the same groups. The pattern of mean scores shows that no single class size made a difference to retained students.

The picture of achievement among students who entered STAR at age or who were not retained in grade one is not as clear as that of first-time kindergartners. While students in S always outscored those in the other two conditions, the difference was only significant at grade one in reading and math and again in reading in grade two. There was also a significant difference between R and RA pupils in reading and math and between R and RA pupils in math in grade two. No statistical difference was found in grade three.

Consistent with the results on the SAT were the findings from the analysis of the Basic Skills First Test results found in TAble 6. Kindergartners who had not been retained performed better in S classes than those in R or RA in both reading and math. No matter the class size, new kindergartners had higher percentages passing than did the retainees.

Retained kindergartners in S class failed to perform as well as those in R or RA classes. Retainees had a lower percent passing in small class in both reading and math than did pupils in R and RA in each of the three grade levels. In grade one, retainees in RA had a higher percent passing in both reading and math than did pupils in R and S. This is true in grade two in math, and in reading in grade three. Students in R have a higher percent passing in reading in grade two and in math in grade

three than did pupils in either of the other two conditions. There is no statistical difference at $p \leq .05$. Again, once a child was retained, small-class placement did not improve his scores.

On the BSF, the new first graders out-performed the retained first graders in all cases except one as seen in Table 7. On the math section of the test, the retainees had a higher percent passing the test only in the RA condition than did the new first graders. Those students not retained performed better in small class, with one exception at the third grade level in math. There was no statistical difference among or between groups for the retained first graders at any of the three grades. Yet, students in S did have a higher percent passing the test in reading and math in grades one and two, and in math in grade three. A difference of 2-4 points was found. Even with this slight variation in scores, there is no remedial effect evident from placing retained students in small classes.

In determining whether class size made a difference in achievement of retained kindergarten and first grade students, the fingings from this study were conclusive. Tracking both retained kindergartners and retained first grade students through grade three, the emergent pattern showed that once a student had been retained, small class size failed to remediate test scores. Students who had not been retained consistently out-scored those who had been held back regardless of class size. Small class size could not help a student once he or she had been retained.

This study raises the question of why small class size did not remediate test scores for retainees. The reveiw of research made as part of this study also showed that once a primary-grade student is retained, generally educators have been unsuccessful in remediating the low scores. How long will this deleterious practice persist? Schwager et al. (1992) summarized the status of retention:

> Retention has historically been seen as a solution to student failure. By controlling the flow of low-achieving students through a system of mass compulsory education, retention practices give the appearance of accountability and enforcement of standards without intervening in the underlying problem, that of low student achievement. As an organizational solution, retention is convenient: costs can be passed on to taxpayers through the general education budget and no change in system structure is required for implementation (p.435).

Educators in the United States must plead guilty as charged. While we tout retention as a means to strengthening standards and promoting stronger student performance, countries like Denmark, Japan, Germany, Canada, and England do not employ retention as an

instructional strategy in the elementary grades and some believe that their students out-perform ours (McAdams, 1993).

Policy makers and practioners might take a lesson from these countries in light of our own research. Concurrenty, a look at finances is often an effective catalyst to change. A comparision of cost for retention and remediation in grade level shows that the price of retention is more than three times that of high quality remedial services for a year; compare $3000 to $800 (Allington, 1988 in Norton, 1990, 206). Surely, the triangulation of achievment, self-esteem, and cost should serve to promote change in policy regarding retention and promotion.

Educators must keep in mind a bit of wisdom passed on by Lao-tzu: "A journey of a thousand miles must begin with a single step." But imperatively, that journey must begin now; the gift of time that retention propounds to give so many has been shown quiet conclusively to rob our country of vital resources in the form of lost years for retainees who so often become dropouts.

The practices of retention and large class size are not going to disappear over night, but the first steps to replace inadequate practices with effective ones must be taken now. We cannot continue to identify the failure of a child to succeed with learning tasks as the child's failure, but we must recognize it as a failure of curriculum and instruction (Bloom, 1981). The failure will become our own if we do not curtail a practice which we know to be of no benefit to children.

TABLE 1

DEMOGRAHICS OF KINDERGARTNERS RETAINED AND NOT RETAINED ENTERING STAR IN 9/85
OF FIRST GRADERS RETAINED AND NOT RETAINED ENTERING STAR IN 9/86

	KINDERGARTEN			1ST GRADE		
	RETAINED	NOT RETAINED	ROW TOTAL	RETAINED	NOT RETAINED	ROW TOTAL
SEX						
MALE						
N	175	3060	3235.0	714	531	1245
ROW%	5.4	94.6	51.4	57.3	42.7	54.7
COL%	69.2	50.7		62	47.2	
FEMALE						
N	78	2981	3059.0	438	593	1031
ROW%	2.5	97.5	48.6	42.5	57.5	45.3
COL%	30.8	49.3		38	52.8	
COLUMN	253	6041	6294.0	1152	1124	2276
TOTAL	4.0	96	100.0	49.4	50.6	100.0
RACE						
WHITE						
N	201	4015	4216	702	661	1363
ROW%	4.8	95.2	67	51.5	48.5	60
COL%	79.4	66.5		61	58.9	
NON-WHITE						
N	52	2026	2078	449	461	910
ROW%	2.5	97.5	33	49.3	50.7	40
COL%	20.6	33.5		39	41.1	
COLUMN	253	6041	6294	1151	1122	2273
TOTAL	4.0	96.0	100.0	50.6	49.4	100.0
SES						
FREE LUNCH						
N	160	2887	3047.0	773	574	1347
ROW%	5.3	94.7	48.4	57.4	42.6	61.1
COL%	63.2	47.8		69.2	52.9	
NOT F. LUNCH						
N	93	3154	3247.0	344	512	856
ROW%	2.9	97.1	51.6	40.2	59.8	38.9
COL%	36.8	52.2		30.8	47.1	
COLUMN	253	6041	6294.0	1117	1086	2203
TOTAL	4.0	96.0	100.0	50.7	49.3	100.0
SCHOOL TYPE						
INNER-CITY						
N	17	1403	1420.0	281	234	515
ROW%	1.2	98.8	22.3	54.6	45.4	22.6
COL%	6.7	23.2		24.4	20.8	
SUBURBAN						
N	57	1347	1404.0	299	408	707
ROW%	4.1	95.9	22.3	42.3	57.7	31.1
COL%	22.5	22.3		26	36.3	
RURAL						
N	148	2757	2905.0	465	383	848
ROW%	5.1	94.9	46.2	54.8	45.2	37.3
COL%	58.5	45.6		40.4	34.1	
URBAN						
N	31	534	565.0	107	99	206
ROW%	5.5	94.5	9.0	51.9	48.1	9.1
COL%	12.3	8.8		9.3	8.8	
COLUMN	253	6041	6294.0	1152	1124	2276
TOTAL	4.0	96.0	100.0	50.6	49.4	100.0

TABLE 2

SESAT II STANFORD TEST SCORES OF KINDERGARTNERS NOT RETAINED

	K				GRADE 1				GRADE 2				GRADE 3			
	READ		MATH		READ		MATH		READ		MATH		READ		MATH	
	n	x	n	x	n	x	n	x	n	x	n	x	n	x	n	x
S	1673	441.2	1694	491.6	1292	536.0	1319	542.6	1027	598.8	1023	594.4	886	630.1	898	631.3
R	1906	435.1	1932	483.7	1393	525.3	1415	533.0	1112	594.1	1111	589.7	964	623.5	971	626.4
RA	1959	436.0	1991	483.4	1460	523.9	1502	532.2	1106	591.3	1104	586.8	960	622.6	976	625.6
TOT	5538		5617		4145		4236		3245		3238		2810		2845	
F RATIO	18.97		16.64		18.91		24.59		7.51		7.92		11.33		5.50	
PROB	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	

TABLE 3

SESAT II STANFORD TEST SCORES OF RETAINED KINDERGARTNERS

	K				GRADE 1				GRADE 2				GRADE 3			
	READ		MATH		READ		MATH		READ		MATH		READ		MATH	
	n	x	n	x	n	x	n	x	n	x	n	x	n	x	n	x
S	59	422.3	61	475.1	45	485.3	49	503.2	34	548.7	33	542.8	18	587.0	17	593.7
R	93	427.4	93	471.9	63	496.0	76	508.4	50	557.0	50	556.4	37	607.0	36	606.7
RA	76	421.5	77	466.0	41	486.8	47	503.4	35	551.8	36	546.3	20	604.1	20	602.9
TOT	228		231		149		172		119		119		75		73	
F RATIO	1.9		1.0		0.7		0.33		0.3		1.20		1.5		0.79	
PROB	0.2		0.3		0.5		0.7		0.7		0.30		0.2		0.5	

TABLE 4

ACHIEVEMENT SCORES OF RETAINED FIRST GRADERS

	GRADE 1				GRADE 2				GRADE 3			
	READ		MATH		READ		MATH		READ		MATH	
	n	x	n	x	n	x	n	x	n	x	n	x
S	146	501.1	153	523.6	96	562.9	95	565.7	65	595.9	66	598.9
R	472	498.9	505	517.9	336	554.8	339	557.7	234	590.6	238	595.5
RA	405	508.5	438	523.3	297	561.2	296	561.3	228	596.2	236	598.7
TOT	1023		1096		729		730		527		540	
F RATIO	2.70		2.67		2.67		1.64		1.75		0.50	
PROB	0.07		0.07		0.07		0.19		0.18		0.60	

TABLE 5

SESAT II STANFORD TEST SCORES OF FIRST GRADERS NOT RETAINED

	GRADE 1				GRADE 2				GRADE 3			
	READ		MATH		READ		MATH		READ		MATH	
	n	x	n	x	n	x	n	x	n	x	n	x
S	199	522.8	202	531.0	133	596.5	113	585.5	54	627.3	96	625.5
R	459	507.0	466	519.7	251	583.2	249	575.5	186	621.5	188	624.3
RA	400	517.5	408	525.5	243	593.7	242	585.2	184	622.7	187	624.9
TOT	1058		1076		607		604		464		471	
F RATIO	8.12		5.64		5.19		4.20		0.77		0.03	
PROB	0.00		0.00		0.01		0.02		0.46		0.97	

TABLE 6

BSF PERCENT (ROUNDED) PASSING BY GRADE (1-3) FOR CONDITION (S,R,RA) BY PRIOR RETENTION AND NO RETENTION IN K, STAR, 1989.

	GRADE 1				GRADE 2				GRADE 3			
RETAINED	**N**	**READ**	**N**	**MATH**	**N**	**READ**	**N**	**MATH**	**N**	**READ**	**N**	**MATH**
S	39	70	39	76	38	65	38	74	29	67	29	70
R	48	69	49	79	38	68	39	78	26	71	25	80
RA	44	73	45	83	43	67	44	81	32	74	33	75
TOT	131	70	133	80	119	67	121	78	87	71	87	75
SIG		0.58		0.3		0.84		0.28		0.42		0.24
NOT RETAINED												
S	1208	88	1202	92	1128	87	1247	90	1103	85	1101	88
R	1161	84	1153	89	974	85	987	89	736	84	735	87
RA	1094	85	1091	90	1072	86	1093	90	987	84	986	86
TOT	3463	86	3446	90	3274	86	3327	90	2826	84	2822	87
SIG		0.00		.00*		.00*		.00*		.05*		.08*

* PROBABLY HEAVILY INFLUENCED BY THE LARGE N

TABLE 7

BSF PERCENT (ROUNDED) PASSING BY GRADE (1-3) FOR CONDITION (S,R,RA) RETAINED INTO 1STGRADE AND NO RETENTION, STAR, 1989.

	GRADE 1				GRADE 2				GRADE 3			
RETAINED	**N**	**READ**	**N**	**MATH**	**N**	**READ**	**N**	**MATH**	**N**	**READ**	**N**	**MATH**
S	154	79	151	88	136	75	138	85	123	70	123	76
R	481	76	480	86	307	73	313	82	198	71	199	74
RA	438	78	435	86	314	72	324	81	255	71	258	74
TOT	1073	77	1066	86	757	73	775	82	576	71	580	74
SIG		0.08		0.23		0.33		0.01		0.75		0.51
NOT RETAINED												
S	194	85	190	91	144	86	145	90	138	84	137	86
R	455	80	454	86	213	82	212	87	136	83	136	85
RA	389	83	388	88	259	85	264	89	202	83	200	87
TOT	1038	82	1032	88	616	84	621	87	476	83	473	86
SIG		0.00		0.00		0.01		0.03		0.51		0.70

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